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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CDMA TELECOMMUNICATION SYSTEM

(57) Abstract: A system and method for the efficient transmission of information in a code division multiple access (CDMA) wireless telecommunication system. The rate of reliable transmission is increased by implementing an orthogonal frequency-division multiplexing (OFDM) scheme in, for example, a direct-spread CDMA network, resulting in a multi-carrier CDMA (MC-CDMA) system. Information (such as voice and data), is encoded (205), divided, and spread across the frequency domain (255), rather than in the time domain as in traditional CDMA; the allowable transmission bandwidth is divided into a number of carriers. Using this scheme, a number of loading parameters such as code rate, data rate, and the number of streams into which the encoded data is divided may be varied to increase the performance of the system. Application of the variable loading parameter may be a function of channel quality, such as the presence of noise or the channel fading state.



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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

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US CL : 370/335

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 370/208, 210, 320, 335, 342; 375/135, 146, 260-264, 271-278, 298, 302-308

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
NPL, EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | US 2001/0028637 A1 (ABETA et al) 11 October 2001 (11.10.2001), figures 2, 4-5, 8-15, 22-24; paragraphs [0012]-[0039] and [0082]-[0121]. | 1-20 |
| X | US 6,188,717 B1 (KAISER et al) 13 February 2001 (13.02.2001), figures 2, 4-5, 9-10; columns 3-12. | 1-20 |
| A | US 2002/0088005 A1 (WU et al) 04 July 2002 (04.07.2002), see entire document. | 1-20 |
| X | US 5,425,050 A (SCHREIBER et al) 13 June 1995 (13.06.1995), figures 5-7. | 1, 14 |

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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